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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,288	05/17/2005	Frank Kamiel Irena Mels	BE 020037	5802

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
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EXAMINER

ALMO, KHAREEM E

ART UNIT	PAPER NUMBER
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2816

DATE MAILED: 07/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/535,288

Applicant(s)

MELS, FRANK KAMIEL IRENA

Examiner

Khareem E. Almo

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 May 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>1/23/06, 5/17/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claim 1 rejected under 35 U.S.C. 102(e) as being anticipated by Yin (US 6801068).

With respect to claim 1, Figure 6 of Yin discloses a PWM generator having an input terminal (VinP) for receiving an analog input signal and an output terminal (Vout Z) for providing a pulse width modulated output signal, the PWM generator comprising: a comparator circuit (comparator receiving VinP and VinN), having a first comparator input (VinP) coupled to said input terminal, a second comparator input (VinN), and a comparator output (VoutZ) coupled to said output terminal; a feedback loop coupled between said output terminal and the second comparator input, the feedback loop comprising a feedback filter (OTA filter module and PWM filter module) for generating a sloping feedback signal when a constant input signal is present at the input terminal.

4. Claim 1 rejected under 35 U.S.C. 102(e) as being anticipated by Noro et al. (US 20030030486).

With respect to claim 1, Figure 6 of Noro et al. discloses a PWM generator having an input terminal (61) for receiving an analog input signal (AINP) and an output terminal (Q) for providing a pulse width modulated output signal, the PWM generator comprising: a comparator circuit (62), having a first comparator input (input from 61) coupled to said input terminal, a second comparator input (input from 71), and a comparator output (P) coupled to said output terminal; a feedback loop coupled between said output terminal and the second comparator input, the feedback loop comprising a feedback filter (71, 64, 70 and 26) for generating a sloping feedback signal when a constant input signal is present at the input terminal.

With respect to claim 2, Figure 6 of Noro et al. discloses a PWM generator

according to claim 1, further comprising controllable switching means (67) for connecting said output terminal either to a third supply voltage (VPX) or to a fourth supply voltage (VMX), said controllable switching means being coupled to said output terminal (Q) and controlled by at least one control signal derived from an output signal of the comparator circuit (63).

With respect to claim 3, Figure 6 of Noro et al. discloses a PWM generator according to claim 2, wherein said controllable switching means comprise: a first controllable switch (68) having a first switch terminal connected to said output terminal (Q), a second switch terminal connected to said third supply voltage (VPX), and a control terminal receiving a first control signal of the at least one control signal; a second controllable switch (69) having a first switch terminal connected to said output terminal (Q), a second switch terminal connected to said fourth supply voltage (VMX), and a control terminal receiving a second control signal of the at least one control signal; wherein each controllable switch has a first operative state wherein the first and second switch terminals are connected to each other, and a second operative state wherein the first and second switch terminals are mutually isolated; and wherein the first and second control signals are generated such that, depending a voltage level of the output signal of the comparator circuit, either the first controllable switch is in its first operative state while the second controllable switch is in its second operative state, or the first controllable switch is in its second operative state while the second controllable switch is in its first operative state.

With respect to claim 4, Figure 6 of Noro et al. discloses a PWM generator

according to claim 3, wherein said first input is a non-inverting input (+) while said second input is an inverting input (-); wherein said third supply voltage (VPX) has a higher voltage level than said fourth supply voltage (VMX); and wherein the first and second control signals are generated such that the first controllable switch is in its first operative state while the second controllable switch is in its second operative state when the output is high, whereas the first controllable switch is in its second operative state while the second controllable switch is in its first operative state when the comparator circuit output is low.

With respect to claim 6, Figure 6 or Noro et al. discloses a PWM generator according to claim 3, wherein said switching means (67) comprise a controllable switch having a first switch terminal connected to said output terminal (Q), a second switch terminal connected to said third supply voltage (VPX), a third switch terminal connected to said fourth supply voltage (VMX), and a control terminal receiving a common control signal (R1), being the at least one control signal; the controllable switch having a first operative state wherein the first switch terminal substantially assumes the voltage received at the second switch terminal and a second operative state wherein the first switch terminal substantially assumes the voltage received at the third switch terminal.

With respect to claim 7, Figure 6 of Noro et al. discloses a PWM generator according to claim 1, wherein said feedback filter comprises: a series circuit comprising an inductor (24), a capacitor (25 or 64) and a resistor (70 or 71) connected between the output terminal and a reference voltage.

With respect to claim 8, Figure 6 discloses a PWM generator according to claim

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7, wherein a loudspeaker system (27) is connected in parallel to said capacitor (25).

With respect to claim 9, Figure 6 discloses an electronic apparatus comprising the PWM generator as claimed in claim 7; and connector via which a loudspeaker system (27) is connectable in parallel to said capacitor (25).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Noro et al. (US 20030030486).

With respect to claim 5, Figure 6 of Noro et al. discloses a PWM generator according to claim 3, wherein said third supply voltage (VPX) has a higher voltage level than said fourth supply voltage (VMX); and wherein the control signals are generated such that the first controllable switch is in its first operative state while the second controllable switch is in its second operative state when the output is low, whereas the first controllable switch is in its second operative state while the second controllable switch is in its first operative state when the comparator circuit output is high but fails to disclose the circuit above wherein said first input is an inverting input while said second input is a non-inverting input. It would have been obvious at the time the invention was

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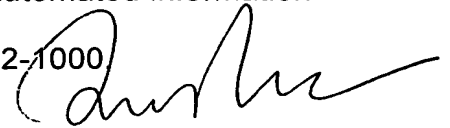
made to a person having ordinary skill in the art to switch the polarity of the comparators for the purpose of inverting the analog input signal.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khareem E. Almo whose telephone number is (571) 272-5524. The examiner can normally be reached on Mon-Fri (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Callahan can be reached on (571) 272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


KEA
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Quan Tra
Primary Examiner